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White Chronos

1 June 1983

MEMORANDUM FOR: Chief, Systems Programming Division

THROUGH : Chief, Interactive Systems Branch

FROM :
Interactive Systems Branch, SPD

SUBJECT : SHARE 60.5 Conference

1. The SHARE 60.5 Conference was held in Phoenix, Arizona, during the week of 22 May. and I represented Interactive Systems Branch in discussions that explored the direction of interactive computing.

2. Software packaging was a hot topic at SHARE once again. While IBM has finally managed to get the software service process under control, several recent decisions have imposed a needless maintenance burden upon the customer. Seemingly minor changes in the software distribution process have changed the relatively routine procedure of installing preventive service into a major effort requiring extensive testing. IBM sent the executives who had ordered the changes to SHARE. During the dialog with the attendees, it became apparent that the planners in IBM were woefully ignorant about how their systems were operated and had been given unsound technical advice. IBM appeared to be receptive to suggestions for improving the software distribution process, and it is hoped that relief will be forthcoming soon. (U)

3. The issue of greatest concern to many of the IBM'ers attending SHARE never appeared in the agenda because it dealt with an unannounced product. With a personal computer capable of running CMS planned for unveiling later this year, IBM is anxiously trying to understand how these micros will be used. The migration of portions of applications from the central host to the workstation will shift the balance of computing. Because the CMS PC is being developed from a relatively obscure research product, IBM has been caught unawares. SHARE will informally clarify some of the intended uses of powerful, compatible workstations before the next conference. (U/FOUO)

4. and I represented the Agency's interests in discussions addressing multisystem management, security, software service and debugging, performance, and the future of VM/CMS. We also lobbied for an early copy of the latest version of VM. is serving as deputy manager of the VM System Management Project within SHARE, and I am serving as manager of the VM Group. The attachment provides additional information learned at SHARE. (U)

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/signed/

STAT

Attachment

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ODP/P/SPD/ISB [redacted] 06-01-83/SHARE605

Distribution:

Original - addressee

- 1 - D/ODP
- 1 - C/CSPO
- 1 - C/CAMS
- 1 - C/CSS
- 1 - C/ED
- 1 - C/OD
- 1 - C/PD
- 1 - C/BSB
- 1 - C/CSB
- 1 - C/DBSB
- 1 - each attendee (AIM only)
- 1 - VM/SP Project
- 5 - Chronos

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Rumors and Raw Data from SHARE

The two primary components of our timesharing systems are running different versions of software. The current version of the Control Program is known as VM/SP Release 1 with the VM/High Performance Option Release 2.5. The current version of the Conversational Monitor System is known as VM/SP Release 2.

- VM/SP Release 3 will be shipped to the customers participating in the early support program at the beginning of July. Eight installations have been selected for early shipment, including the University of California at San Francisco, Fireman's Fund Insurance, and the White House. About half will also be testing the new SQL/DS product. Although we are not part of the formal testing program, we also hope to receive an early copy of the new software. Release 3 contains many new features with implications for our advanced applications. If we receive the software a month from now, we should be able to stage it into production this fall. (U/FOUO)
- VM/SP Release 4 should be announced early next year. The major feature will be support for IBM's System Network Architecture. A new function, known as the system interface, is being provided to support SNA. IBM has been deferring a technical disclosure; they should be ready to brief us about the new interface in July. SP Release 4 is expected to keep most of the development resources at the IBM Endicott Lab busy during the next several months. Rumors of a major change to CMS that would have converted the file system to a non-native, OS-compatible base have fortunately been proven groundless. (U/FOUO)
- Users of 308X-series processors must install one of the High Performance Option upgrades to run VM/SP. Each version of VM/SP has a corresponding version of HPO. The numbering scheme is confusing:

<u>VM/SP</u>	<u>VM/HPO</u>
1	1, 2
2	3
3	3

The version of HPO that corresponds with VM/SP Release 3 has not yet been announced. It will be officially available in January 1984, but we hope to get a copy by October, thus skipping SP 2/HPO 3. There will not be an early support program for this release. Instead, a subsequent version that contains a swapping enhancement to the paging subsystem will be subjected to formal field testing. IBM would like us to test the swapper even though it is not expected to offer a substantial performance improvement in our environment. (U/FOUO)

- There are eight or nine versions of HPO projected beyond those already fielded. About half will provide support for new hardware, while the remainder will improve performance for large systems. Future HPO releases will support storage sizes of 64 meg and 32 channels on 308X processors.

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There was some talk, however improbable, of upgrading the existing multiprocessor support to handle four-engine complexes. The resources supporting HPO development are being drawn down and have shrunk to less than half the size of the VM/XA development group. (U/FOUO)

- The Control Program component of the VM/XA program product -- the version of VM that takes advantage of the extended architecture -- is reported to be on schedule. The design phase is nearly complete. The CP component of VM/XA is still expected to be based upon the VM/XA Migration Aid, a tool that eases transition from MVS/SP to MVS/XA. Release 1 of the Migration Aid will be available at the end of 1983. Subsequent releases of the Migration Aid will incrementally provide functional parity with VM/SP. Features that have been added to VM since 1977 will be refitted to the Migration Aid, rather than attempting to upgrade the current version of VM to support the extended architecture. While half of the modules will be affected by the rework, only two subsystems will have to be completely rewritten. MA Release 3 is expected sometime in the second half of 1985 and should be more or less equivalent to the current version of VM/SP. Support for teletype terminals and the IBM 3850 Mass Storage Subsystem will not be provided. (U/FOUO)
- IBM is exploring possible successors to the current family of VM systems. Dubbed the VM/XB project, a small group at the IBM Yorktown Research Center is looking at the requirements for interactive computing after 1990. One idea being pursued involves restructuring the VM Control Program around a kernel similar to that used by IBM's TSS product. (U/FOUO)
- IBM is expected to announce a new series of processors early next year. One of the processors will be a 25-30 mip dyadic system. It is similar to the 3081 with more sophisticated instruction processing and some new operating system assists. A scientific processor capable of delivering 35 mflops without requiring application program changes is also expected. Announcement of a three-engine system with no single point of failure has presumably been delayed. (U/FOUO)
- Support in VM for the new technology tape drives was planned for two increments: "compatibility mode," whereby the drives could be used without the new capabilities, followed by full support for the new features. IBM has encountered problems and will provide only full support; when is not known. (U/FOUO)
- IBM is expected to announce the "Washington," a version of the personal computer that runs CMS later this year. The initial release of software is so lacking in function that it is of limited interest to us. Users who have received disclosures describing the enhanced PC have expressed concern about the service and licensing policies for the box; IBM is reconsidering both issues. Subsequent releases will provide capabilities that blur the distinctions between the micro and the host, as well as offering LISA-like capabilities. The price of the CMS-micro will be \$13,000. (U/FOUO)

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- IBM is expected to announce the dual-density 3380 disk drives soon. VM support for the IBM 3088 CommUnications unit should also be announced soon; we have been testing the code since March. (U/FOUO)
- IBM Yorktown Research has been experimenting with a single-user VM system known as 37T. It combines a 4331 processor, a disk drive and a Sun graphics display in an executive-style box. These minicomputers are not as popular as expected, primarily due to their relatively slow speed. At 200 kips, the 4331 is only twice as fast as some of the new micros. (U/FOUO)
- IBM's strategy for office automation is far from clear. The DISOSS products run on a variety of systems -- but not VM -- and have a good track record in terms of interfacing to other systems. PROFS, the VM-based offering, is encountering a variety of problems. We will be forced to continue developing tools to satisfy our office automation requirements for the foreseeable future. (U/FOUO)
- IBM hopes to announce availability of a single system image capability before the end of the year. The software, which we are testing as part of our joint study, would be released as a PRPQ. Other installations have already begun expressing interest in such a package. (U/FOUO)
- IBM is expected to make several announcements related to VM security within the next year. An integrity statement for the VM Control Program is expected before August. A version of RACF that runs under VM is also expected soon, although it will be of interest to only a handful of installations. The privilege classes for VM commands are being restructured to allow more control over which users can issue privileged commands. In the long term, IBM is beginning to put together a security strategy for VM covering the 1986-1990 time frame. We expect to have a great deal of influence on that strategy. (U/FOUO)
- The Interactive System Productivity Facility is a product that IBM is going to ram down our throats whether we like it or not. It is composed of a dialog manager and a program development facility. The latter is considered by many to be useless under VM. The dialog manager is now wired into a couple of products and is expected to eventually become the standard screen management interface. It is reportedly very easy to use. It supports EXEC-2 now and will support REX soon. This trend is of special concern to us because ISPF is an "object code only" product and supports only 3270 terminals. (U/FOUO)
- IBM's failure to provide support in the VSAM access method on VM for 3380 disk drives has been a nuisance -- we have been forced to keep a large database on a 3350 volume. This problem will be eliminated very soon. IBM is also beginning design of an long-term solution that would allow use of a fully MVS-compatible VSAM for sharing data between VM and MVS. (U/FOUO)

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- Tymshare's GNOSIS system has progressed to the point where it is running a production application. GNOSIS is running under VM (in a V=R area for performance) but has run on real machines. (U/FOUO)
- IBM recently announced the 4250 printer, a very impressive graphics device intended for use in the office. The 4250 produces 600 pel/inch composed text and graphics on aluminized paper. It connects to a host via a 3274 controller. A page is produced in about ninety seconds, costs about 13 cents, and is ready to shoot. The 4250 is all points addressable and supports an extensive font library. It will be available next January; Boeing is a field test site. The University of Waterloo has indicated an intent to support the new capabilities in their Script package. (U)
- IBM has managed to shoot itself in the foot again. This episode involves software packaging. Because the mom-and-pop shops were not installing preventive service, IBM's planners decided that bundling service back into the base would force the small users to run newer versions of software. Unfortunately, shifting the base pulled the rug out from under the HPO series of enhancements. The HPO developers felt compelled to respond by merging their code with the base as well. The resultant mess is considered by many (including the IBM service element) to be uninstallable and non-maintainable. SHARE recommended that IBM revert to a fixed base and ship service as part of each base shipment -- this would solve the service problem without disrupting the large shops. We hope that they take our advice. (U)
- Cornell University is participating with a joint study with IBM involving Floating Point Systems processors attached to Cornell's VM/CMS system. (U/FOUO)
- A long awaited reorganization of VM development activities within IBM has taken place. Lorraine Fenton, formerly manager of the VM development group in Endicott, has been appointed as the VM "czar," answering directly to an IBM vice president. Don Casey now has consolidated responsibility for VM-related activities at the Endicott Lab. The development group in Poughkeepsie has been moved to Kingston. Dick Butler, formerly the development group manager, has been promoted to manager of the Kingston Programming Center. Frank Skidmore is now manager of the development group. These people are making decisions that have a disproportionate effect upon the shape of computing at the Agency. (U)
- Growth of the VM development organizations has leveled off recently. The VM component at the Endicott Lab is holding at 200; the VM group at the Kingston Lab is currently at 250. During the next year or so, Endicott is expected to grow to 300 and Kingston will expand to 400. (U/FOUO)

Caveat: Much of the foregoing was revealed by persons who would not have been as informative had they known that I would include it in my trip report. Please use discretion when discussing material regarding vendor plans.

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